

We claim:

1. A method for detecting a reliability of an integrated semiconductor component, which comprises:

using a temperature sensor including at least a portion of a parasitic functional element of the semiconductor component to perform a measurement mode for measuring a temperature that is caused by a heating element and that is actually present at the semiconductor component;

performing a stress mode for stressing the semiconductor component at least in a manner dependent on a temperature of the heating element; and

evaluating a failure instant of the semiconductor component at least in a manner dependent on the temperature that is caused by the heating element.

2. The method according to claim 1, which comprises:

during the stressing, altering an electrical parameter selected from a group consisting of a stress current density and a stress voltage in the semiconductor component; and

during the evaluating, taking the electrical parameter into account.

3. The method according to claim 1, which comprises:

during the measurement mode, impressing a very small measurement current on the temperature sensor.

4. The method according to claim 1, which comprises:

during the measurement mode, deriving a temperature that is actually present at the semiconductor component from a characteristic curve selected from a group consisting of an I/V characteristic curve of the parasitic functional element and a C/V characteristic curve of the parasitic functional element.

5. The method according to claim 1, which comprises:

performing the measurement mode and the stress mode separately from each other with respect to time.

6. The method according to claim 1, which comprises:

during the measurement mode, calibrating the heating element;
and

during the stress mode, stressing the semiconductor component in a manner dependent on the heating element that has been calibrated.

7. The method according to claim 1, which comprises:

simultaneously performing the measurement mode and the stress mode.